Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
The Development of Operational,	)	
Technical, and Spectrum Requirements	)	WT Docket No. 96-86
for Meeting Federal, State and Local	)	
Public Safety Agency Communication	)	
Requirements Through the Year 2010	)	

To: The Commission

COMMENTS OF UTC

Pursuant to Section 1.415 of the FCC's Rules, UTC, the Telecommunications Association ("UTC") hereby submits its comments in response to the Notice of Proposed Rule Making, FCC 96-155, released April 10, 1996, (NPRM) in the above-captioned matter. Through this proceeding, the FCC intends to establish a plan to meet public safety communications needs through the year 2010.

UTC is the national representative on communications matters for the nation's electric, gas and water utilities and natural gas pipelines. Well over 1,000 utilities and pipelines are members of UTC, ranging in size from large electric-gas-water utilities serving millions of consumers to small rural electric cooperative and water authorities serving only a few thousand consumers each. UTC's membership includes utilities of all ownership types: investor-owned, cooperative, Federal, state, and local government. In

addition, UTC's Board of Directors includes representatives from the following national associations:

American Gas Association
American Public Power Association
American Water Works Association
Edison Electric Institute
Interstate Natural Gas Association of America
National Rural Electric Cooperative Association

All utilities and pipelines rely on communications to fulfill their underlying public service obligations, and the vast majority operate private land mobile and private microwave communications systems. UTC also provides land mobile frequency coordination for electric, gas and water utilities as the FCC's certified frequency coordinator for the Power Radio Service. UTC is therefore pleased to have this opportunity to submit comments on public safety spectrum requirements.

As an initial matter, UTC commends the Commission, the National Telecommunications and Information Administration (NTIA) and the dedicated members of the Public Safety Wireless Advisory Committee (PSWAC) for their efforts over the last year in connection with this proceeding. As discussed below, UTC's formal comments in this docket are rather limited owing to the comprehensive manner in which PSWAC solicited information, reconciled conflicting positions, and suggested solutions. It is unfortunate that public safety communications requirements are not given greater attention on a regular basis. Nevertheless, this proceeding has focused an important spotlight on some difficult issues, and has provided an opportunity for government and the private sector to work cooperatively in addressing them.

I. Definition of "Public Safety"

In the United States, the term "public safety" has both a broad meaning and a narrow meaning. In its general sense, "public safety" refers to activities intended to protect and preserve life, health, property and the general public welfare. However, "public safety" is too frequently used to label any activity conducted by an entity that claims eligibility in the "Public Safety Radio Services" as established in Part 90 of the FCC's Rules. This two-part definition of "public safety" creates an interesting political situation in which those who have historically been classified as "public safety" are charged with drafting a new definition of "public safety." To its credit, PSWAC has successful identified the distinguishing characteristics of public safety communications. However, because of the long tradition of the Part 90 "Public Safety Radio Services," the authors of the PSWAC Final Report frequently revert to identifying "public safety" by reference to current Part 90 eligibility categories. UTC therefore urges the FCC to separate the policy in the Final Report from the politics of its primary contributors.

At the recommendation of the Interoperability Subcommittee, PSWAC adopted a multipart definition of Public Safety and a closely related definition of Public Services:

> 4.3.2.1 ***Public Safety:*** *The public's right, exercised through Federal, State or Local government as prescribed by law, to protect and preserve life, property, and natural resources and to serve the public welfare.*
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> 4.3.2.1.1 ***Public Safety Services:*** *Those services rendered by or through Federal, State, or Local government entities in support of Public Safety duties.*
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> 4.3.2.1.2 ***Public Safety Services Provider:*** *Governmental and public entities or those non-governmental, private organizations, which are*

properly authorized by the appropriate governmental authority whose primary mission is providing Public Safety services.

4.3.2.1.3 ***Public Safety Support Provider:*** *Governmental and public entities or those non-governmental, private organizations which provide essential public services that are properly authorized by the appropriate governmental authority whose mission is to support Public Safety services. This support may be provided either directly to the public or in support of Public Safety services providers.*

4.3.2.2 ***Public Services:*** *Those services provided by non-Public Safety entities that furnish, maintain, and protect the nation's basic infrastructures which are required to promote the public's safety and welfare.*

UTC agrees with the FCC's tentative conclusion that Public Safety should be defined by reference to responsibility and function, and not necessarily the nature of the entity providing that function.[1] The definitions adopted by PSWAC are helpful in identifying the core attributes of Public Safety, but they focus almost exclusively on functions performed by Federal, state or local governmental entities. The Final Report is replete with references to the many critical safety-related functions that are performed by non-governmental entities including private utilities, yet PSWAC's proposed definition of Public Safety would place undue emphasis on whether the function is "exercised through Federal, State, or local government." Different regulatory policies or considerations may apply depending on the nature of the entity providing the service, but from the public's standpoint, the key consideration is the service which it receives.

Sections 1 and 332 of the Communications Act of 1934, as amended, direct the FCC to ensure safety of life and property. The FCC must therefore adopt a definition of

[1] NPRM, para. 25.

Public Safety that is sufficiently broad to include all providers of such services, whether governmental or private sector. In this regard, UTC agrees with the FCC's concerns, as expressed in the NPRM, that the very nature of utility and pipeline services "often involve potential hazards where reliable radio communications is an essential tool in either avoiding the occurrence of such hazards or responding to emergency circumstances."

The services provided by electric, gas and water utilities and natural gas pipelines affect every person and every geographic area in the nation. To monitor, control, and protect the operation of these systems, utilities and pipelines rely extensively on wireless internal communications systems. In addition to supporting safe and efficient day-to-day operations, utilities and pipelines use their internal communications capabilities to issue orders in connection with disaster recovery and for detecting overloads and structural failures. Water utilities depend on supervisory control and data acquisition (SCADA) systems to monitor and control scattered treatment and distribution systems so ensure that adequate quantity and pressure is maintained for firefighting needs as well as public consumption.

Federal and state laws and regulations require utilities and pipelines to maintain reliable communications. For example:

- Under the Pipeline Safety Act, emergency response plans for gas pipelines must include reliable communications with fire, police and other public officials. Private wireless systems are essential to satisfying this requirement.
- The Federal Emergency Management Agency (FEMA) requires reliable primary and backup means of communications between a nuclear facility and the utility's near-site emergency operations facilities, state and local

emergency operations centers, radiological monitoring teams, and the Nuclear Regulatory Commission. Reliability of these communications systems must be demonstrated under emergency conditions.

- North American Electric Reliability Council (NERC) standards require "reliable and secure telecommunications networks" and the use of exclusive telecommunications channels between the systems and control centers of adjacent electric systems.[2]

Effective monitoring and control of the utility infrastructure is fundamental to the well-being of the population and our nation's economy. Seemingly isolated incidents can have major consequences given the highly interconnected nature of our energy and water supply systems, as evidenced by the July 2, 1996, power failure in 15 Western states. The day after the incident, the President issued a Memorandum to the Secretary of Energy directing a full investigation of the events surrounding the power failure. As noted by the President, when control is lost, public safety is threatened:

> Yesterday, there was an unexplained power failure in the Western power grid, disrupting electric service to hundreds of thousands of customers in 15 Western states. The outages had a ripple effect as power stations across the vast grid automatically shut down as the result of experiencing a surge. The outages caused numerous problems throughout the region, including disruptions to train service, traffic problems, loss of air conditioning, interruption of telephone service, and interference with water supplies.
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> I have directed that these [reports and recommendations be made] to assure the reliability of the Nation's electricity infrastructure. A steady supply of power is a vital factor in both the local and national economies and is essential for the safety

[2] NERC was organized by the electric power industry following the Northeast Blackout of 1965 in order to adopt operating procedures that will ensure the stability and reliability of the nation's power grid. In an Advisory Committee Report on the 1965 Blackout, it was concluded that utilities must maintain control of communications systems needed for system control and power dispatching: "The need to assure a high level of reliability in communications, as well as to transmit a growing volume of data, argues increasingly for the use of microwave with continuously available standby or auxiliary power supply at all communication relay and terminal points. . . . All critical communications facilities, particularly those having to do with relaying and control of important circuits, should be the responsibility of the operating utility and under its complete control." *Prevention of Power Failures*, A Report to the Federal Power Commission, June 1967, Vol. II, pp. 22-23.

of all Americans. The swift implementation of this directive will assure that these interests will be protected.[3]

UTC therefore recommends that the FCC adopt definitions of Public Safety and Public Service that adequately encompass the public safety functions of governmental as well as non-governmental providers of services that protect and preserve life, property, and natural resources and serve the public welfare.

II. Transition Issues

UTC concurs with the position of the PSWAC Transition Subcommittee that if the FCC consolidates the various Part 90 radio services, it would be prudent to consolidate them into three service pools: Public Safety, Public Service and Business/Commercial.[4] At present, access to the spectrum (or stated another way, limiting contention for channels) is controlled through the frequency coordination process. While UTC opposes complete consolidation of service pools, partial consolidation may be feasible where the users in each pool generally have the same relative need for priority access to spectrum.[5]

In many respects, the recommendations of the Transition Subcommittee conform closely with UTC's recommendations in PR Docket No. 92-235 on regrouping the current Part 90 radio services into three pools: Emergency Response, Public Service, and

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[3] Memorandum from President William J. Clinton to the Secretary of Energy, dated July 3, 1996, on Western Power Outage.

[4] PSWAC Final Report, Appendix E, Sections 4.4.8 - 4.4.17.

[5] In a "perfect world," priority access to channels could be established through technological means. However, there is a significant base of installed radio equipment that is incapable of such prioritization, and it has yet to be demonstrated how priority access schemes could function in an environment where licensees are permitted to use differing modulation schemes and channel bandwidths.

Business/Commercial.[6] UTC also recommended an interservice sharing arrangement that would permit sharing from "higher" priority services into lower priority services, and which would permit limited resale of capacity to entities that are eligible in the licensee's own radio service or in a higher priority radio service.

III. Spectrum Requirements Issues

UTC strongly disagrees with the recommendation of the PSWAC Spectrum Requirements Subcommittee that any new channels created as a result of the "refarming" initiative should be immediately reallocated to public safety. First, such a policy would be a disincentive for current licensees in these bands to implement spectrum-conserving technologies. Second, it is unclear when refarming will actually produce "new" channels, nor is it clear how many such channels can be anticipated. Thus, the spectrum needs of public safety/public service organizations must be considered without reliance on the potential for "new" allocations from spectrum refarming.

IV. Conclusion

UTC is pleased to have been a part of the PSWAC process and to offer these limited comments on its Final Report and the FCC's NPRM. The PSWAC Final Report offers many innovative suggestions for meeting the immediate and long-term spectrum needs of public safety/public service organizations. Spectrum auctions and the policies that have evolved in response have introduced a new level of complexity in spectrum

[6] UTC hereby incorporates by reference its Comments and Reply Comments in PR Docket No. 92-235 on the issue of service pool consolidation.

management. Section 309(j) forbids the FCC from considering potential auction revenue when allocating spectrum. However, the siren-call of auctions is proving to be an unavoidable distraction to the FCC's responsibility to facilitate the calls of siren-users (and other public safety/public service entities).[7] Through the present proceeding, the FCC has an opportunity to establish a record on which it can remain true to its mandate, in the Communications Act, to allocate spectrum in the public interest and to ensure the safety of life and property.

In developing policies for "public safety" use of the spectrum, the FCC should focus on functions, not just the nature of the entity providing the service. PSWAC has done a thorough job of cataloging the various ways in which spectrum is used to meet "public safety" needs; it is now up to the FCC to adopt a regulatory framework that is inclusive of more than just those who have historically been licensed in the "Public Safety Radio Services."

[7] For example, public service utilities and others have been waiting over four years for the FCC to act on applications for multiple address systems (MAS) in the 932/941 MHz bands -- systems that were needed then and are needed today to fulfill critical SCADA and telemetry functions. Even as the FCC searches its inventory for more spectrum that can be allocated for auctionable commercial services, public safety/public service users with demonstrable communications requirements are forced to wait. UTC trusts that the FCC's new commitment to the spectrum needs of public safety/public service licensees will include a commitment to grant applications in bands that have already been allocated for these purposes.

WHEREFORE, THE PREMISES CONSIDERED, UTC respectfully urges the Federal Communications Commission to take action in this proceeding in accordance with the views expressed herein.

Respectfully submitted,

UTC

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